

PHS  
81-3290

# NCHSR National Health Care Expenditures Study

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## **Health Insurance Coverage of Veterans**

Data  
Preview **4**

## Background of the Study

Analyzing how Americans use health care services and determining the patterns of health expenditures and insurance are the goals of a landmark study by the National Center for Health Services Research (NCHSR). The study will provide important information and analyses on a number of issues:

- The cost, utilization, and financing implications of various national health insurance proposals.
- The influence of Medicare and Medicaid programs on the use of medical services and the costs of providing care.
- The extent of and reasons for changes in Medicaid participation over time.
- The extent to which different government programs at the federal, state, and local levels affect access to care.
- The distribution of tax benefits to individuals and business under current tax laws concerning medical and health insurance expenses, and the potential changes in the distribution of benefits if these laws were to be changed.
- The costs of illness for various diagnoses in different treatment settings.
- The breadth and depth of coverage and the proportion of medical costs paid by health insurance.

A major component of NCHSR's Intramural Research Program, the National Health Care Expenditures Study (NHCES) is generating a series of analytical reports on critical national health policy issues for government agencies, legislative bodies, health professionals, and others concerned with health care policies.

Basic data for these reports were supplied by the National Medical Care Expenditure Survey (NMCES), which is providing the most comprehensive statistical picture to date of how health services are used and paid for in the United States. The survey was completed in September, 1979.

Data were obtained in three separate, complementary stages which surveyed (1) about 14,000 randomly selected households in the civilian noninstitutionalized population and in which each household was interviewed six times over an 18-month period during 1977 and 1978; (2) physicians and health care facilities providing care to household members during 1977; and (3) employers and insurance companies responsible for their insurance coverage.

Funding for NMCES was provided by NCHSR, which cosponsored the survey with the National Center for Health Statistics. Data collection for the survey was done by Research Triangle Institute, NC, and its subcontractors, National Opinion Research Center of the University of Chicago, and Abt Associates, Incorporated, of Cambridge, MA, under Contract No. HRA 230-76-0268.

This report is one of a Data Preview Series that will present preliminary estimates of several key measures of health insurance, health services use, and health care expenditures.

September 1980

Copies of this report are available from NCHSR, Publications and Information Branch, Room 7-44, 3700 East-West Highway, Hyattsville, Maryland 20782, tel.: 301/436-8970. The graphics and editorial coordinator for this publication series is Martin Judge.

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DHHS Publication No.(PHS) 81-3290

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# Health Insurance Coverage of Veterans

Walter R. Lawson, Jr.

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There are approximately 27.3 million male veterans of the Armed Forces in the United States. Federal statute<sup>1</sup> requires that health services be provided to veterans under the auspices of the Veterans Administration. Eligibility is determined on the basis of a priority system; approximately two out of five veterans are eligible under this system to receive care in or through Veterans Administration facilities<sup>2</sup>. This data preview examines the extent to which veterans have public or private health insurance coverage and whether they are similar to or different from other adult males in the population in this respect. The types of health insurance covering disabled veterans are shown separately. (See page seven for the sources and limitations of these data and the inside back cover for the definitions of health insurance used.)

Overall, a slightly higher percentage of veterans (including the disabled) was found to have health insurance coverage than the rest of the adult male population, although exceptions were noted. Three-quarters of insured veterans had private health insurance, as compared to somewhat less than two-thirds of the rest of the adult male population. Overall coverage by public insurance mechanisms, including Medicare and Medicaid, was relatively infrequent among veterans. Disabled veterans, however, were much less likely than other veterans to have private health insurance and considerably more likely to be covered by such public insurance mechanisms. It should be noted that the data indicate only the fact of coverage and do not allow comparisons of the type of services covered. They also do not address the question of whether veterans, regardless of coverage, used Veterans Administration services.

## Characteristics of insured and uninsured veterans

At the time of the first National Medical Care Expenditure Survey interview, which was conducted during the period from mid-January to early April of 1977, 11.1 percent of veterans (approximately 3 million males 20 years or older) were uninsured, compared to 14.5 percent (5.4 million uninsured males 20 years of age or older) in the rest of the population (Table 1). A comparison of age groups confirmed this finding of a relatively high level of insurance coverage of veterans. The exception was the youngest age group examined (20 to 25 years), where 34.6 percent of veterans were found to be uninsured, compared to 24.0 percent for males who had never served in the Armed Forces.

For categories defined by color, education, and region of residence, higher percentages of insured veterans were found than in the rest of the adult male population. Within these categories, however, patterns of insurance coverage were similar for veterans and nonveterans. Thus, regardless of veteran status, highly educated men were more likely to have health insurance than those with fewer years of schooling; white adult men were more likely to be insured than other adult men; and higher percentages of uninsured men were found in the South and West of the country than in the Northeast and North Central regions.

An exception to this was insurance coverage according to the level of perceived health status. Here, no differences were observed in the respective percentages of uninsured nonveterans, but a clear difference

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<sup>1</sup>Title 38 of the Code of Federal Regulations, Section 17, amended Washington: U.S. Government Printing Office.

<sup>2</sup>National Survey of Veterans 1980 Summary report on a 1977 survey of noninstitutionalized veterans. Reports and Statistics Service, Office of Comptroller Washington: U.S. Government Printing Office



**Table 1.**  
**Health insurance coverage of male veterans and of other adult males:**  
**Percentage distributions and standard errors for selected characteristics**

NMCES: United States, 1977. First household interview

Characteristic	Number of persons (in thousands)		Veterans		Other		Veterans		Other		Veterans		Other	
	Veterans	Other	Total	With insurance coverage	Without insurance coverage	Total	With insurance coverage	Without insurance coverage	Total	With insurance coverage	Without insurance coverage	With insurance coverage	Without insurance coverage	
Total	27,285	37,303	100.0	88.9	11.1	100.0	85.5	14.5	100.0	0.6	0.6	0.5	0.5	
Age	Percent distribution													
20-25 years	1,147	8,851	100.0	65.4	34.6	100.0	76.0	24.0	100.0	3.2	3.2	1.3	1.3	
26-45 years	11,576	14,142	100.0	88.7	11.3	100.0	85.4	14.6	100.0	0.8	0.8	0.7	0.7	
46-64 years	12,144	7,606	100.0	90.3	9.7	100.0	87.8	12.2	100.0	0.8	0.8	0.8	0.8	
65 years or older	2,419	6,705	100.0	94.4	5.6	100.0	95.8	4.2	100.0	1.2	1.2	0.6	0.6	
Color														
White	25,191	32,259	100.0	89.5	10.5	100.0	86.7	13.3	100.0	0.6	0.6	0.5	0.5	
All other	2,094	5,045	100.0	82.3	17.7	100.0	78.3	21.7	100.0	2.4	2.4	1.5	1.5	
Years of education														
0-11	7,371	13,041	100.0	85.1	14.9	100.0	83.2	16.8	100.0	1.1	1.1	0.9	0.9	
12	10,193	10,401	100.0	88.7	11.3	100.0	86.5	13.5	100.0	0.8	0.8	0.9	0.9	
13-15	4,722	6,471	100.0	90.3	9.7	100.0	85.2	14.8	100.0	1.2	1.2	1.2	1.2	
16 or more	4,838	6,004	100.0	94.5	5.5	100.0	91.1	8.9	100.0	0.7	0.7	0.9	0.9	
U.S. Census region														
Northeast	6,287	8,158	100.0	91.3	8.7	100.0	88.8	11.2	100.0	0.8	0.8	0.8	0.8	
North Central	7,134	10,219	100.0	91.6	8.4	100.0	89.5	10.5	100.0	1.3	1.3	0.7	0.7	
South	8,361	12,120	100.0	86.0	14.0	100.0	82.7	17.3	100.0	1.2	1.2	0.9	0.9	
West	5,502	6,802	100.0	87.1	12.9	100.0	80.6	19.4	100.0	1.6	1.6	1.7	1.7	
Perceived health status														
Excellent	12,596	16,516	100.0	90.3	9.7	100.0	86.4	13.6	100.0	0.8	0.8	0.7	0.7	
Good	10,149	14,071	100.0	88.5	11.5	100.0	85.3	14.7	100.0	0.8	0.8	0.7	0.7	
Fair	3,296	4,534	100.0	87.5	12.5	100.0	85.4	14.6	100.0	1.5	1.5	1.2	1.2	
Poor	1,204	1,807	100.0	82.5	17.5	100.0	85.2	14.8	100.0	3.0	3.0	1.8	1.8	

Note: The data in this table represent all veterans (including the disabled) and all other males 20 years or older.

was found for veterans: those in excellent health were less likely to be uninsured than those in only fair or poor health.

### Types of health insurance coverage

Differences between veterans and other adult males were also examined in terms of coverage by private and other insurance mechanisms, divided into the following categories:

- *Type 1*: Private insurance only or private insurance combined with other insurance (excluding Medicare and Medicaid);
- *Type 2*: Medicare coverage only or Medicare combined with private or other insurance (excluding Medicaid);
- *Type 3*: Other public insurance only, including Medicaid, CHAMPUS, and CHAMPVA, but excluding Medicare.
- *Type 4*: No insurance.

Overall, private insurance was the prevailing mode of coverage for all adult males (Table 2). However, veterans were more likely to be covered by private insurance (Type 1) than other men (75.6 percent versus 63.6 percent) and less likely to be covered by Medicare (Type 2) or other public insurance mechanisms (Type 3) for most of the characteristics examined (age, color, education, region of residence, and perceived health status). Exceptions were veterans 20 to 25 years of age, who were less likely to be covered by private health insurance than other men within this age group (56.2 percent and 71.6 percent, respectively) and twice as likely to be covered by public insurance such as Medicaid (8.7 percent versus 4.2 percent).

The relatively large percentage of veterans holding private health insurance (Type 1) was particularly noticeable for those subgroups in which this type of coverage is comparatively low among nonveterans. Examples are those in the lowest educational category (0-11 years of schooling), where 60.8 percent of veterans were privately insured versus 45.7 percent of nonveterans; all other than white men (68.3 percent veterans, 55.2 percent nonveterans); those living in the Western region of the country (68.3 percent veterans, 52.7 percent nonveterans); and those of fair and poor health status (59.8 and 39.4 percent veterans, 44.8 and 28.7 percent nonveterans, respectively). The last category also included a large group of uninsured veterans.

### Health insurance coverage of disabled veterans

Disabled veterans are a relatively small group in the entire population, and the size of the survey sample precludes a specific analysis of their insurance coverage by the characteristics shown in Tables 1 and 2. However, an assessment of the type of coverage for this group as a whole is possible. Table 3 shows that among both disabled and all other veterans, the percentage of those without health insurance was the same (about 11 percent). On the other hand, disabled veterans as a group were substantially less likely than other veterans to hold private health insurance (Type 1; 65.7 percent versus 76.7 percent) and somewhat more likely than other veterans to be covered by Medicare, whether alone or combined with other coverage (Type 2). For these types of coverage, therefore, disabled veterans were comparable not so much to other veterans as to the rest of the adult male population. Furthermore,

**Table 2.**  
**Types of health insurance coverage of male veterans and other adult males:**  
**Percentage distribution and standard errors for selected characteristics**

NMCES: United States, 1977. First household interview

Characteristic	Number of persons (in thousands)		Total		Private insurance only or private with other insurance excluding Medicare and Medicaid (Type 1)		Medicare only or private or other insurance excluding Medicare (Type 2)		Other public insurance only, including Medicaid, CHAMPUS, and CHAMPVA, but excluding Medicare (Type 3)		No insurance (Type 4)	
	Veterans	Other	Veterans	Other	Veterans	Other	Veterans	Other	Veterans	Other	Veterans	Other
<b>Age</b>												
Total	27,285	37,303	100.0	100.0	75.6	63.6	9.4	15.9	3.9	6.0	11.1	14.5
									Percent distribution			
20-25 years	1,147	8,851	100.0	100.0	56.2	71.6	*0.6	*0.2	8.7	4.2	34.6	24.0
26-45 years	11,576	14,142	100.0	100.0	84.8	77.7	0.7	0.9	3.2	6.8	11.3	14.6
46-64 years	12,144	7,606	100.0	100.0	82.1	76.3	4.2	6.9	4.0	4.7	9.8	12.2
65 or older	2,419	6,705	100.0	100.0	8.4	9.0	81.1	78.7	4.9	8.1	5.6	4.2
<b>Color</b>												
White	25,191	32,259	100.0	100.0	76.2	64.9	9.7	16.5	3.6	5.3	10.5	13.3
All other	2,094	5,045	100.0	100.0	68.3	55.2	5.7	12.5	8.4	10.6	17.7	21.7
<b>Years of education</b>												
0-11	7,371	13,041	100.0	100.0	60.8	45.7	19.5	29.3	4.8	8.2	14.9	16.8
12	10,193	10,401	100.0	100.0	78.7	72.5	5.6	9.1	4.4	4.9	11.3	13.5
13-15	4,722	6,471	100.0	100.0	82.5	72.4	4.8	7.3	3.1	5.5	9.7	14.8
16 or more	4,838	6,004	100.0	100.0	85.9	79.2	6.2	9.7	2.4	2.2	5.5	8.9
<b>U.S. Census region</b>												
Northeast	6,287	8,158	100.0	100.0	80.2	68.5	9.1	16.1	2.0	4.3	8.7	11.2
North Central	7,134	10,219	100.0	100.0	81.8	71.6	7.3	14.6	2.5	3.4	8.4	10.5
South	8,361	12,120	100.0	100.0	71.7	59.7	9.5	16.1	4.8	7.0	14.0	17.3
West	5,502	6,802	100.0	100.0	68.3	52.7	12.2	17.6	6.6	10.2	12.9	19.4
<b>Perceived health status</b>												
Excellent	12,596	16,516	100.0	100.0	82.5	72.5	4.9	9.7	2.9	4.2	9.7	13.6
Good	10,149	14,071	100.0	100.0	76.8	64.3	8.3	15.6	3.4	5.4	11.5	14.7
Fair	3,296	4,534	100.0	100.0	59.8	44.8	20.6	31.7	7.1	8.8	12.5	14.6
Poor	1,204	1,807	100.0	100.0	39.4	28.7	33.2	36.5	9.9	20.0	17.5	14.8

Age	Total	27,285	37,303	Standard error				
				0.9	0.9	0.6	0.3	0.6
20-25 years	1,147	8,851		2.8	1.3	0.6	2.3	0.6
26-45 years	11,576	14,142		0.9	1.3	0.2	0.4	1.1
46-64 years	12,144	7,606		1.0	1.2	0.5	0.5	0.7
65 or older	2,419	6,705		1.3	1.1	2.0	1.0	0.9
								1.2
								0.6
<b>Color</b>								
White	25,191	32,259		0.9	0.9	0.6	0.4	0.6
All other	2,094	5,045		2.8	2.6	1.3	1.3	2.4
								1.5
<b>Years of education</b>								
0-11	7,371	13,041		1.6	1.4	1.3	0.6	0.7
12	10,193	10,401		1.2	1.5	0.7	0.6	1.2
13-15	4,722	6,471		1.5	1.4	0.8	0.7	0.9
16 or more	4,838	6,004		1.3	1.7	0.9	0.7	0.8
								0.9
<b>U.S. Census region</b>								
Northeast	6,287	8,158		1.5	1.6	1.1	0.5	0.6
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<b>Perceived health status</b>								
Excellent	12,596	16,516		0.9	1.1	0.6	0.5	0.8
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Poor	1,204	1,807		3.1	3.0	3.2	2.2	2.3
								3.0
								1.8

Note: The data in this table are based on all male veterans (including the disabled) and all other males 20 years or older.

\* Relative standard error equal to or greater than 30 percent.



**Table 3.**  
**Types of health insurance coverage of disabled veterans,**  
**all other veterans, and all other males: Percentage distribution**  
**and standard errors for adult males<sup>a</sup>**

NMCES: United States, 1977. First household interview

	Number of persons (in thousands)	Private insurance only or private with other insurance excluding Medicare and Medicaid (Type 1)	Medicare only or Medicare with private or other insurance excluding Medicaid (Type 2)	Other public insurance only, including Medicaid, CHAMPUS, and CHAMPVA, but excluding Medicare (Type 3)	No insurance (Type 4)
	Total				
Disabled veterans	2,715	100.0	65.7	13.4	9.6
All other veterans	24,570	100.0	76.7	8.9	3.3
All other males	37,303	100.0	63.6	15.9	6.0
					11.3
					11.1
					14.5
Percent distribution					
Disabled veterans	2,715	2.45	1.68	1.48	1.67
All other veterans	24,570	0.86	0.62	0.32	0.64
All other males	37,303	0.91	0.64	0.63	0.51
Standard error					

<sup>a</sup>20 years or older.

the percentage of disabled veterans covered by Medicaid or other public insurance (Type 3) was almost three times that of all other veterans (9.6 percent and 3.3 percent) and more than half again as large as that of all other adult males (6 percent).



## Sources and Limitations of the Data

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The data in this report on health insurance coverage of male veterans of the Armed Forces should be regarded as preliminary. They are based on information provided by household respondents during the first NMCES interview, which was conducted in respondent homes during the period from mid-January to early April 1977. Respondents were asked whether anyone in the family was currently covered by any of the following types of insurance:

- Medicare Part A and Part B
- Medicaid
- Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) or Civilian Health and Medical Program of the Veterans Administration (CHAMPVA)

- Private insurance for hospital, dental, or physician services.

Respondents were also asked whether they or any family member had ever served in the Armed Forces and had a service-connected disability. The present data reflect the insurance status of male veterans, regardless of discharge status and regardless of whether they were eligible to receive services in Veterans Administration facilities. Persons currently in the military are not included in the survey, which was limited to the civilian noninstitutionalized population. Also, this report does not include data on female veterans, as their number was too small for detailed analysis.

Because one respondent provided most of the information for the family and may have incorrectly attributed insurance coverage to a specific family member or been unaware of existing coverage, some first interview reports by household respondents on coverage or the lack of it may be incomplete or incorrect. Data collected in subsequent interviews on changes in insurance status are expected to reduce the inaccuracies in this respect and also to furnish more precise quarterly and yearly estimates of type of coverage on the basis of employer reports of job-related insurance plans; physician reports of sources of payment for services; and sources of family income (particularly with regard to Medicaid coverage).

Since these data are not yet available, responses to questions about who paid for medical care between January 1, 1977, and the first interview were examined for evidence of health insurance coverage when none was reported. Estimates in this data preview of whether veterans and other adult males had health insurance are based both on responses to direct questions about coverage and on reports that public programs, such as Medicare or Medicaid, or private insurance paid for health care or prescription drugs. As a result, 1 percent of all adult males who were reported as uninsured in the interviews were reclassified because some form of health insurance had paid for their medical care, decreasing the estimate of those without coverage by 577,000, from 8,975,000 to 8,398,000.

Another source of potential variation in these estimates is the effect of seasonal changes in employment, which may be reflected in estimates of coverage based on short periods of time.

### Sample design

The survey sample was designed so that statistically unbiased national estimates could be produced that are representative of the civilian noninstitutionalized population of the United States. To this end, the study used the national multistage area samples of the Research Triangle Institute and the National Opinion Research Center. Sampling specifications required the selection of about 14,000 households. Data were obtained for about 91 percent of eligible households in the first interview. For a detailed description of the survey sample and of sampling, estimation, and adjustment methods, including weighting for nonresponse and poststratification, see Cohen and Kalsbeek, *National Medical Care Expenditure Survey: Estimation and Sampling Variances in the Household Survey*, to be published in 1980.

### Reliability of estimates

Since the statistics presented in this report are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken. This potential difference between sample results and a complete count is the sampling error, which is measured by a statistic called the standard error of the estimate. Standard errors in this report were estimated using the Taylor series method (Cohen and Kalsbeek, to be published in 1980).

The chances that an estimate from the sample would differ from a complete census by less than one standard error are about 68 out of 100. The chances that the difference between the sample estimate and a complete census would be less than twice the standard error are about 95 out of 100. The reader can use the standard errors to compute the confidence interval within which the true population value lies for any given estimate. For example, the percentage of veterans without health insurance coverage (see Table 1) was 11.1 percent and the standard error was 0.6 percent. Thus, with 95 percent confidence, the true percent of veterans without coverage falls between plus or minus two standard errors of 11.1 percent or between 9.9 percent ( $11.1 - (2 \times 0.6)$ ) and 12.3 percent ( $11.1 + (2 \times 0.6)$ ). Tests of statistical significance were used to determine whether differences between estimates exist at specified levels of confidence in the population or whether they simply occurred by chance. Differences were tested using Z-scores having asymptotic normal properties, based on the rounded figures at the 0.05 level of confidence. Unless otherwise noted, only statistically significant differences between estimates are discussed in the text.

The results are also subject to nonsampling errors, such as respondent misreporting and data processing mistakes. These types of errors were kept to a minimum by the quality control procedures and other methods incorporated into the survey design and administration.

### Rounding

Estimates of insurance coverage are rounded to the nearest tenth of a percent. Because of rounding, the sum of percents may not equal 100 and the number of persons within each grouping may not add to the



respective total. The standard errors presented are also rounded to the nearest tenth.

### Definition of Terms

*Health insurance coverage* includes Medicaid, CHAMPUS or hospital, dental, or physical therapy for members of the uniformed services of active duty, retired, and dependent children not eligible for coverage. Insurance policies covering only death benefits are not considered health insurance coverage. Health services from the programs as neighborhood health centers are likewise not considered

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### Upcoming Data Preview

The following is a sample of data during 1980:

- This report includes the average charges for visits to a physician's office (excluding flat fees), the proportion of the charge paid by the family, and the different types of insurance coverage. The data are for the first quarter of 1977.
- The average length of time spent waiting to see the physician is reported for office visits, hospital outpatient departments, and emergency rooms. Included are data on patient dissatisfaction with time spent waiting. The data are for the first quarter of 1977.
- The average length of time to obtain an appointment with a physician is outlined, together with patient dissatisfaction with delays in scheduling appointments. The data are for the first quarter of 1977.

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